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Forest
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Mr. Larry Morrin
Regional Director
Bureau of Indian Affairs
Southwest Regional Office
P.O. Box 26567
Albuquerque, NM 87125

Dear Mr. Morrin:

On July 6 and 7, Dave Conklin of our staff met with Bill Hornsby (Mescalero Agency) to evaluate a proposed FY 2005 dwarf mistletoe suppression project on the Mescalero Apache Indian Reservation. Several Tribal and other Bureau of Indian Affairs employees also participated in these site visits. Portions of the proposed project area had been examined previously by Dave in conjunction with a monitoring trip in April. This letter describes the proposed project areas and planned treatments, and includes our recommendations. Detailed prescriptions and maps of the treatment areas are included in the Agency's proposal.

The proposed treatment areas are in the Rock Tank, Bull Well, and Snow-Bear (Whitetail) cutting units and include a total of 2,521 acres. These three areas are part of an extensive ponderosa pine-dominated forest located roughly in the center of the reservation. Intensive management of these areas — including aggressive dwarf mistletoe control efforts — was initiated in the mid to late 1990s. (Prior to this, most timber management activities here could be described as "pick and pluck," focusing on selective removal of "high-risk" trees, which, at least to some extent, exacerbated an already severe and extensive dwarf mistletoe situation at Mescalero.)

All of the acreage proposed for treatment in FY 2005 has (or had) moderate to severe pine dwarf mistletoe (*Arceuthobium vaginatum* subsp. *cryptopodium*) infestation. Treatment of "clean" and lightly infected portions of the Rock Tank, Bull Well, and Snow Bear areas — mostly under single tree selection prescriptions — has already been completed. As in the past several years, the FY 2005 proposal package for Mescalero is organized according to silvicultural prescription (and cost per acre), as follows:

Clearcut w/reserves. This prescription covers 962 acres in the Rock Tank and 328 acres in the Snow Bear cutting units with severe dwarf mistletoe infection. These areas, which include about 50 different scattered units (most 15 to 30 acres in size), were deferred from treatment during previous entries in 1994 (Rock Tank) and 1998/99 (Snow Bear) to limit the size of the clearcuts implemented at that time. Recent stocking surveys in these adjacent, older clearcuts indicate that most are adequately stocked with young regeneration.

As did the older clearcut blocks (before treatment), these areas have infection rates of 80 to 90+ percent (excluding seedlings) and stand ratings (DMRs) approaching 3.0 or higher in the ponderosa pine component. Roughly 10 to 20 percent of the pine has died since year 2000, a result of severe infection, drought, and bark beetle activity.



Commercial harvest of the Rock Tank blocks was done in late 2003 and early 2004, removing nearly all the larger (>10" dbh) ponderosa pine. The Snow Bear blocks are scheduled for harvest within the next few months. The proposed follow-up treatment would cut all remaining ponderosa pine above two feet tall ("knee-high"). Exceptions occur in some blocks — these are superior trees 50 feet or more from the nearest visible infection that have been (or will be) leave-tree marked by a silviculturist.

Most of these blocks have a significant component of non-host trees (mostly Douglas-fir, occasional white pine, and varying amounts of "tree-size" gambel oak) that would be retained to ameliorate site conditions and take advantage of accumulated growth. Many of the adjacent 1994 and 1998/99 clearcuts already have a significant amount of "cover," both from these "reserve trees" and the now sapling-size regeneration.

In some blocks, depending on current stocking, the Douglas-fir (mostly sapling-size) would be thinned to 15- to 20-foot spacing, to improve growth and provide more room for existing pine seedlings. We recommend that all white pine (unless severely damaged or deformed) be retained, regardless of spacing. This recommendation would apply throughout the FY 2005 project area, since there is relatively little white pine and because blister rust hazard is relatively low.

Sanitation follow-up in old clearcuts. This prescription covers 507 acres (21 separate blocks) in the Rock Tank area that were clearcut in 1994. Following logging, the infected pine understory was "slashed" (usually down to "knee high"); understocked portions were planted with ponderosa pine seedlings in 1995. Recent surveys indicate that most of the blocks are adequately stocked with a combination of natural regeneration and planted stock.



1994 Rock Tank Clearcut

Based on monitoring results from the 1992 Whitetail A & B project area, roughly five to 10 percent of the natural pine regeneration in these patch cuts is probably infected. By now (10 years after the original treatment), virtually all latent mistletoe infection should be visible. Treatment would involve careful, systematic coverage of each block, locating and cutting all infected saplings. This should greatly reduce the amount of dwarf mistletoe that develops during the course of the rotation.

Note that similar sanitation follow-up work has already been completed on 703 acres of other patch clearcuts in the Rock Tank area, as part of an FY 2002 Forest Health Protection project.

Shelterwood w/reserves: removal phase and sanitation follow-up. This prescription covers a total of 724 acres in the Bull Well cutting unit and includes four separate proposals based on expected per acre costs. These areas, which previously had moderate dwarf mistletoe infestation, were harvested in 1994 and 1995 under shelterwood seed cut prescriptions, retaining mostly uninfected and some lightly infected seed trees. Soon after harvest, much of the existing pine

understory was “slashed” to knee-high, although scattered groups of saplings and poles were left in areas with very light infection or that appeared to be mistletoe-free.

A scheduled “final removal cut” was implemented in 2003 and early 2004. This removed all visibly infected seed trees and other selected trees of merchantable size, while retaining most uninfected overstory trees of good form and vigor as “reserve trees.” The understory in these areas is quite variable, but is generally well-stocked with young pine regeneration, plus the older cohorts mentioned above. In some areas, significant amounts of latent mistletoe infection have developed in these older cohorts.

The proposed treatment would cut (or girdle) all visibly infected poles and larger saplings. Felling would be used in most areas, while girdling would be used in a few units requiring only very light sanitation. (The Agency has determined that girdling is more cost-effective than felling in these situations.) Although these treatments would focus on infected poles and older saplings, any younger infected regeneration encountered should also be killed at this time. A more thorough sanitation of the young regeneration in these areas is recommended in about five years.

Summary and conclusions. The proposed treatments would be a continuation of what may be the most aggressive and sustained effort ever to control dwarf mistletoe in the Southwest. Clearcutting of previously deferred blocks in the Rock Tank area will convert deteriorating stands to much more productive ones over the long run (assuming adequate regeneration) and reduce spread of the parasite into adjacent, previously treated units. The follow-up sanitation treatments are needed to reduce residual infection to very low, perhaps negligible levels, insuring healthy development of these (mostly) young stands.

As in recent years, the majority of the FY 2005 treatments would be implemented via contract with Tribal members, through the Tribe’s Division of Resource Management and Protection. We are pleased to support these continuing efforts toward improving long-term forest health and productivity at Mescalero.

Sincerely,

/s/ Debra Allen-Reid
DEBRA ALLEN-REID
New Mexico Zone Leader,
Forest Health

cc: Leonard Lucero, John Anhold
John Waconda, Southwest Regional Office, BIA
Bernie Ryan, Branch of Forestry, Mescalero Agency, BIA